

Dramatic Decreases in *Salmonella* Serotype Enteritidis (SE) in FoodNet Sites, 1996-1998.

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Background: SE emerged as the most common *Salmonella* serotype in the United States in the 1980s and 1990s, reaching a peak in 1995. Outbreaks and sporadic cases of SE are most often associated with consumption of undercooked eggs. However, in the past decade, farm-to-table control measures have been instituted particularly in areas of the United States hardest hit by the epidemic. The objective of this analysis is to describe the trends in SE incidence rates among the original five sites of the Emerging Infections Program's Foodborne Diseases Active Surveillance Network (FoodNet).

Methods: Since 1996, FoodNet sites have been conducting active laboratory-based surveillance for selected foodborne pathogens including *Salmonella*. Trends in SE were monitored in: Minnesota, Oregon, and counties in California, Connecticut, and Georgia for the 3-year period, 1996-1998.

Results: In 1996-1998, a total of 5721 cases of *Salmonella* were reported from the five FoodNet sites (2069, 1915, 1737, in each year respectively). The percentage of all serotyped *Salmonella* that were SE decreased from 1996 to 1998 (19% in 1996, 18% in 1997, 12% in 1998). The overall incidence of SE infection declined from 2.5 per 100,000 population to 1.4/100,000. Trends varied by site with significant declines in California (2.9 to 1.4), Connecticut (7.9 to 3.5) and Minnesota (2.5. to 1.3). There was no important change in the SE rates in Georgia (0.5 to 0.7) or Oregon (1.2 to 1.3), the two sites with low initial SE rates. The average annual age-specific rates of SE for the three-year period were highest among children <1 year (3.9/100,000 population). There was a decline in rates in all age groups from 1996 to 1998. By race-ethnicity, average annual rates were highest among Hispanics (2.1/100,000 population) followed by blacks (1.4), whites (1.4) and Asians (0.8). Cases peaked in summer in all years (July Sept, 34% of cases). In the 3 years, two persons died and an average of 17% were hospitalized (17% in 1996, 17% in 1997, and 15% in 1998).

Conclusion: Although SE remains an important public health concern; there have been a remarkable decrease in the incidence of human illness. Overall incidence rates decreased 42% between 1996 and 1998; FoodNet sites with the highest initial incidence had the largest decline in rates (56% in Connecticut, 53% in California, 50% in Minnesota). This reduction may be a result of targeted interventions such as on farm control measures, refrigeration, and educational efforts. Further monitoring of SE rates is needed to assess whether these declines are continuing.

Suggested citation:

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